

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/009087

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07C235/00 C07C255/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BEILSTEIN Data, WPI Data, PAJ, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	BESTMANN, H. J.; LANG, H. J.: "Zur Reaktion von Alkyliden.triphenylphosphoranen mit Chinonen" TETRAHEDRON LETTERS, vol. 25, 1969, pages 2101-2106, XP001205101	1, 4
A	page 2102; table I; compound VII	10
X	JUBY, P. F.; GOODWIN, W. R.; HUDYMA, T. W.; PARTYKA, R. A.: "Antiinflammatory activity of some indan-1-carboxylic acids and related compounds" J. MED. CHEM., vol. 15, no. 12, 1972, pages 1297-1306, XP001204917	1, 3, 4, 8, 9
A	page 1299; compounds 9D, 9E, 9F	10
	-/-	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

21 February 2005

Date of mailing of the international search report

04/03/2005

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ALLEN, G. R. JR.; LITTELL, R.; MCEVOY, F. J.; SLOBODA, A. E.: "5-substituted-1-indancarboxylic acids as potential antiinflammatory agents" J. MED. CHEM., vol. 15, no. 9, 1972, pages 934-937, XP001204841	1,3,4,8, 9
A	page 933; figure II; compounds 8D,9D,9E,9B	10
X	TAYLOR, E. C.; CONLEY, R. A.; KATZ, A. H.: "Thallium in organic synthesis 62. A convenient synthesis of alpha-arylsuccinic acids" J. ORG. CHEM., vol. 49, 1984, pages 3840-3841, XP001204842	1,3,4
A	page 3841, right-hand column, lines 11-17	10
X	TAMURA, Y.; SHIROUCHI, Y.; MINAMIKAWA, J.; HARUTA, J.: "Synthesis of 2-Arylsuccinates by Oxidative 1,2-Aryl Migration of 3-Aroylpropionic Acids or 5-Arylfuran-2(3h)-ones with Thallium(III) Nitrate" CHEM. PHARM. BULL., vol. 33, no. 2, 1985, pages 551-556, XP001204918	1,3,4
A	page 553; table II; compound 49	10
X	US 3 644 479 A (BRISTOL-MYERS CO.) 22 February 1972 (1972-02-22)	1,3,4,8, 9
A	column 3, lines 7-35	10
X	US 3 940 434 A (CIBA-GEIGY CO.) 24 February 1976 (1976-02-24)	1,4,8,9
A	column 24, lines 35,36; example 9	10
X	DE 20 23 000 A (TAKEDA CHEM. IND.) 5 August 1971 (1971-08-05)	1,4,8,9
A	page 3; examples 3,6	10
X	US 3 663 627 A (BRISTOL-MEYERS CO.) 16 May 1972 (1972-05-16)	1,3,4,8, 9
A	columns 3,7, lines 53-65 column 9, lines 1-30 column 11, lines 33-35 column 7, lines 53,65	10
X	GOTTHARDT, H.; NIEBRLA, S.: "Thermische Reaktionen von Thioketonen mit Acetylendicarbonsäure-dimethylester" LIEBIGS ANN. CHEM., 1980, pages 867-872, XP009042968	1
A	page 868; compound 9	10
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ARSENAULT, G.; BROADBENT, A. D.; HUTTEN-CZAPSKI, P.: "Enolate Ion Reaktionen of Leucoquinizarin. Michael Additions" J. CHEM. SOC., CHEM. COMMUN., 1983, pages 437-438, XP009043011	1
A	page 437; table 1; compound 2	10
X	BARNETT, ET AL: "The action of Maleic Anhydride upon some Anthracene derivatives" J. CHEM.SOC., 1934, pages 1224-1226, XP009042990	1
A	compound VII	10
X	UEDA, T.; ITO, I., IITAKA, Y.: "Syntheses of Pyrazole derivatives. XXBI. Reaction of 1-Methyl-2-phenyl-1,2,3,10-tetrahydro-4H-b enzo[6,7]thiopyrro[3,4-c]pyrazole-3,4-dione with Dimethyl Acetylenedicarboxylate." CHEM PHARM. BULL., vol. 24, no. 4, 1976, pages 596-606, XP009042969	1
A	page 600; compound 22	10
X	AVETISYAN ET AL.: "Relationship between chemical structure and anticonvulsant activity in succinimides" PHARM. CHEM. J., vol. 22, no. 4, 1988, pages 309-313, XP009042977	1,6
A	page 309; figure 1; compound VIIB page 310; figure 2; compound X	10
X	CAGNIANT, P.; BELLINGER, N.; CAGNIANT, D: "Contribution à l'étude de quelques dérivés substitués en 1 du dibenzosélénophène; nouvelle synthèse du benzo[1,2-d]naphtho[1,2-d]sélénophène." C.R.ACAD. SC. PARIS, T.277, SERIE C., 29 October 1973 (1973-10-29), pages 779-781, XP009042974	1
A	2-dibenzosélénophen-1-yl-succinic acid	10

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.1

Although claims 7 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

Continuation of Box II.1

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy

Continuation of Box II.2

Present claims 1-4 relate to an extremely large number of possible compounds. In fact, the claims contain so many options, variables, possible permutations that a lack of clarity (and conciseness) within the meaning of Article 6 PCT arises to such an extent as to render a meaningful search of the claims impossible. Consequently, the search has been carried out for those parts of the application which do appear to be clear (and concise), namely compounds of formula (I) in which Q is Phenyl and R2 is CONH2, CO2H or CO2R7. e.g. those compounds recited in the examples and closely related homologous compounds.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

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Box II Observations where certain claims were found unsearchable (Continuation of Item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 7 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☒ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 3644479	A	22-02-1972	CA 920609 A1	06-02-1973
US 3940434	A	24-02-1976	CH 585687 A5	15-03-1977
			AR 206297 A1	15-07-1976
			AT 337681 B	11-07-1977
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			AT 733173 A	15-08-1975
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			DE 2023000 A1	05-08-1971
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			GB 1320183 A	13-06-1973
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